Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SCOTT ROBERT WARMKA
and DAVID DANIEL BACKLUND

Appeal No. 2002-1471
Application No. 09/141,183

ON BRIEF

Before BARRETT, LEVY, and BLANKENSHIP, Administrative Patent Judges.

LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, 2, 8, 9, 12-19. Claims 3-7, 10 and 11 have been indicated as allowable if rewritten in independent form (answer, page 2).

BACKGROUND

Appellants' invention relates to a disc drive data storage system and load beam having a slide capture which allows a conductor sleeve to move longitudinally therethrough in a first direction which is coincident with a longitudinal axis of a capture sleeve proximate to the slide capture, for routing a head wire and tube assembly. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced as follows:

1. A load beam adapted for coupling a gimbal to a support arm in a data storage system and for supporting a conductor sleeve running from the support arm to a location proximate the gimbal, the load beam comprising:

a resilient section having a first end adapted for attachment to the support arm and having a second end;

a substantially rigid section having a first end coupled to the second end of the resilient section and having a second end adapted for attachment to the gimbal, wherein the resilient and substantially rigid sections of the load beam are separated from one another by a preload bend in the load beam;

a first slide capture adapted to slidably secure the conductors sleeve to the rigid section of the load beam, wherein when slidably securing the conductor sleeve to the rigid section of the load beam, the first slide capture allows the conductor sleeve to move longitudinally therethrough in a first direction which is coincident with a longitudinal axis of the conductor sleeve proximate the first slide capture, while substantially constraining the conductor sleeve from moving in all directions orthogonal to the first direction; and

a first longitudinal inhibiting capture adapted to secure the conductor sleeve to the resilient section of the load beam such that longitudinal displacement of the conductor sleeve proximate the first longitudinal inhibiting capture is constrained.

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Hagen 5,027,239 Jun. 25, 1991

Claims 1, 2, 8, 9, 12, 13, and 16-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hagen.

Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Hagen.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 14, mailed May 4, 2001) for the examiner's complete reasoning in support of the rejections, and to appellants' brief (Paper No. 13, filed February 13, 2001) for appellants' arguments thereagainst. Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered. See 37 CFR 1.192(a).

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer. Upon consideration of the record before us, we affirm-in-part.

Appellants set forth (brief, page 4) three claim groupings, listing claim 1 as representative of the first group; claim 8 as representative of the second group, and claim 19 as representative of the third group. Accordingly, independent claims 1, 8, and 19 will be considered as representative of the claims rejected under 35 U.S.C. § 102(b), and claim 14 will be considered as representative of the claims rejected under 35 U.S.C. § 103(a).

We turn first to claim 1. To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. In re Schreiber, 128

F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). As stated in In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) (quoting Hansgirg v. Kemmer, 102 F.2d 212, 214, 40 USPQ 665, 667 (CCPA 1939)) (internal citations omitted):

> Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. If, however, the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function, it seems to be well settled that the disclosure should be regarded as sufficient.

Appellants assert (brief, page 5) that "[c]laim 1 requires that the load beam include 'a first slide capture adapted to slidably secure the conductor sleeve to the rigid section of the load beam, wherein when slidably securing the conductor sleeve to the rigid section of the load beam, the first slide capture allows the conductor sleeve to move longitudinally therethrough in a first direction which is coincident with a longitudinal axis of the conductor sleeve proximate the first slide capture, while substantially constraining the conductor sleeve from moving in all directions orthogonal to the first direction."

Appellants assert (brief, page 6) that in Hagen (col. 5, lines 17-20) that capture tabs 34, 36 on load beam 60 function the same as capture tabs 38, 40 on load beam 12, and that capture

tabs 34, 36 must be closed sufficiently to prevent sleeve 22 from sliding or moving longitudinally. Appellants assert (id.) that this disclosure of Hagen teaches away from the claim limitation requiring that the capture tabs allow the conductor sleeve to slide or move longitudinally. The examiner's position is that claim 1 recites "a first slide capture adapted to slidably secure the conductor sleeve." In the examiner's opinion (answer, page 4), the tabs are "adaptable" to not be closed sufficiently, and therefore would prevent movement. Appellants argue (brief, page 7) that "there is no teaching or suggestion that these captures in the Hagen patent are, or can be, adapted to allow longitudinal movement while substantially restraining movement in all orthogonal directions. According to appellants, the Hagen patent specifically requires that these captures must be closed sufficiently to prevent conductor sleeve 22 from sliding or moving longitudinally."

Before addressing the examiner's rejections based upon prior art, it is an essential prerequisite that the claimed subject matter be fully understood. The properly interpreted claim must then be compared with the prior art. Claim interpretation must begin with the language of the claim itself. See Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878,

882, 8 USPQ2d 1468, 1472 (Fed. Cir. 1988). Accordingly, we will initially direct our attention to appellants' claim 1 to derive an understanding of the scope and content thereof.

What we are dealing with in this case is the construction of the term "adapted to" recited in appealed claim 1. As stated by the court in In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) "[t]he name of the game is the claim."

We find that the claim language "adapted to" is a functional limitation, which is an attempt to define something by what it does, rather than by what it is. There is nothing inherently wrong with defining some part of an invention in functional terms. A functional limitation must be evaluated and considered just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. See In re Venezia, 530 F.2d 956, 189 USPQ 149 (CCPA 1976) where it was held that limitations such as "members adapted to be positioned" serve to precisely define present structural attributes of interrelated component parts of the claimed assembly; see MPEP §2173.05(g) Eight Edition, Rev. 1, February 2003. In our view, the language "adapted to" is a broad recitation of structure, that cannot be ignored. While it is not

necessary that the reference disclose that the first slide capture will allow the conductor sleeve to move in a longitudinal direction therethrough, it is necessary that the capture tab be capable of allowing sliding movement of the conductor sleeve in a longitudinal direction. We find that the specific disclosure in Hagen (col. 3, lines 53 and 54) that the tabs are bent over the conductor sleeve to secure it in place, makes clear the capture tabs of Hagen are not adapted to slidably secure the connector sleeve, as asserted by appellants. Thus, we find that to adjust the bending of the capture tabs to permit longitudinal sliding movement of the conductor sleeve would require modification of the bending of the tabs of Hagen. Because modification of the bending of the capture tabs would be required to allow the conductor sleeve 22 to slidably move longitudinally in tabs 34 and 36, we find that Hagen does not anticipate claim 1. We are not persuaded by the examiner's assertion that Hagen's tabs are "adaptable" to not be closed sufficiently. To modify the capture tabs so they are only bent to the extent that they would permit sliding of the sleeve would require modification of Hagen, which is not permissible in an anticipation rejection. Thus, we find that the examiner's position of anticipation is unsupported by evidence in the record. Accordingly, we find that the examiner

has failed to establish a prima facie case of anticipation of claim 1. The rejection of claim 1 under 35 U.S.C. § 102(b) is therefore reversed. In addition, although claim 1 was rejected under 35 U.S.C. § 102(b), we have considered the issue, sua sponte, of whether Hagen suggests, under 35 U.S.C. § 103(a), the invention set forth in claim 1. From our review of Hagen, we find no suggestion of modifying the bending of the capture tabs 34, 36 of Hagen to permit longitudinal movement of the contact sleeve in a longitudinal direction. Moreover, as independent claim 8 requires that the first capture allows the conductor sleeve to move in a direction coincident with a longitudinal axis of the conductor sleeve, we find that Hagen does not anticipate claim 8. Accordingly, the rejection of claim 8, and claims 2, 9-13, 16-18, dependent from claims 1 and 8 is reversed.

We turn next to independent claim 19. Appellants assert (brief, page 8) that the "means for securing" constitutes a functional limitation invoking 35 U.S.C. § 112, sixth paragraph. Appellants assert (id.) that the Office is obligated to construe functional limitations in accordance with the corresponding structure disclosed in the specification. Appellants assert (brief, pages 8 and 9) that figures 2-7 and related portions of the specification teach structures corresponding to the "means

for securing," and that the structure includes a combination of slide captures (figures 3 and 4) on the rigid section of the load beam to allow longitudinal displacement therethrough with longitudinally inhibiting captures (figures 2 and 5-7) on the resilient section of the load beam to prevent longitudinal displacement therethrough. It is argued (brief, page 9) that Hagen's capture tabs, which are sufficiently closed to prevent the conductor sleeve 22 from sliding or moving longitudinally do not meet the requirements of the claim.

The examiner's position (answer, page 5) is that the structure disclosed in Hagen is equivalent to the structure disclosed in the present application, and that appellants have not provided sufficient proof that the structure of Hagen is not equivalent structure. Appellants maintain (brief, page 10) that the burden rests on the examiner to show that they are in fact equivalent structures.

In order for the examiner to be able to ascertain whether the disclosure of Hagen is the same as or equivalent to the structure, material or acts disclosed in appellants' specification, that correspond to the recited function, it is necessary for the correponding structure to be defined. We find that appellants' broad reference to the structures presented in

the figures is not sufficient to establish exactly what structure appellant is relying upon. In addition, as asserted by the examiner, we observe that appellants' claim 19 does not recite means for securing the conductor and protective sleeve for longitudinal movement, but instead, only recites "means for securing" an electrical conductor and a protective sleeve to the load beam. Appellants' claim, as broadly drafted, does not distinguish between the structure of slide capture 260 connected to the rigid portion 220 of the load beam, which permits movement of sleeve 250 in a longitudinal direction, and the structure of capture 240, connected to the resilient section 225 of the load beam. The claim is broad enough to read upon Hagen's disclosed structure for inhibiting the longitudinal movement of the conductor or sleeve 250. As Hagen discloses a longitudinally inhibiting capture, including elements 62, 64, 66, and 68, which are adapted to secure the conductor sleeve to the resilient section of the load beam (brief, page 5), we find that Hagen discloses the same or equivalent structure as appellants "means for securing." Accordingly, we find that the examiner has established a prima facie case of anticipation of claim 19, which has not been successfully been rebutted by appellants. The

rejection of claim 19 under 35 U.S.C. § 102(b) is therefore affirmed.

We turn next to the rejection of claims 14 and 15 under 35 U.S.C. § 103(a) as unpatentable over Hagen. We reverse the rejection of claims 14 and 15 because the examiner has not shown that it would have been obvious to an artisan to have modified Hagen to provide longitudinal sliding movement of the conductor sleeve. Accordingly, the rejection of claims 14 and 15 under 35 U.S.C. § 103(a) is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 2, 8, 9, 12, 13, and 16-18 under 35 U.S.C. § 102(b) is reversed. The decision of the examiner to reject claims 14 and 15 under 35 U.S.C. § 103(a) is reversed. The decision of the examiner to reject claim 19 under 35 U.S.C. § 102(b) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

LEE E. BARRETT Administrative Patent Judge	)
STUART S. LEVY Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
HOWARD B. BLANKENSHIP Administrative Patent Judge	)

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